AMENDMENT

<u>Amendments to the Claims</u>: Please replace all prior versions and listings of claims with the following listing of claims.

LISTING OF CLAIMS:

1.   (**Currently Amended**)   A method for agent-based monitoring of network devices discovered in an enterprise network, comprising:

discovering a plurality of network devices in a network, wherein each of the network devices discovered in the network include a type and a plurality of hardware characteristics;

discovering a plurality of network device classes in the network, wherein each of the network device classes discovered in the network correspond to the type for one or more of the discovered network devices;

loading a plurality of agent templates corresponding to the discovered network devices, wherein each of the agent templates associated with a class of network devices and comprising comprise a class hierarchy having a plurality of instance level hierarchical definition for that class definitions for one of the network devices device classes discovered in the network, and wherein the plurality of instance level class definitions represent the hardware characteristics for the one or more discovered network devices of the type corresponding to the respective network device class;

selecting one of the discovered network devices as a network device to be monitored, wherein the selected network device having has a type and a plurality of hardware characteristics that include at least a class of the selected network device;

selecting one of the plurality of agent templates that comprises the class hierarchy for based on the network device class of corresponding to the type for the selected network device, wherein the plurality of instance level class definitions in the class hierarchy for the selected agent template represent comprising a hierarchy of object classes that defines possible combinations of the hardware characteristics for the one or more discovered network devices of the type corresponding to [[in]] the network device class and the type for [[of]] the selected network device; and

instantiating [[an]] a plurality of agent objects object from the plurality of instance level object class definitions in the class hierarchy for [[of]] the selected agent template, wherein the plurality of instantiated agent objects correspond that corresponds to the plurality of hardware characteristics [[of]] for the selected network device, and wherein the plurality of instantiated agent objects are configured object operable to monitor the plurality of hardware characteristics [[of]] for the selected network device.

2.   (Currently Amended) The method of claim 1, wherein the plurality of hardware characteristics [[of]] for the selected network device further include at least one Management Information Base (MIB) parameter.

3.   (Currently Amended) The method of claim [[1]] 2, wherein the plurality of hardware characteristics [[of]] for the selected network device further include one or more of a vendor identity, a model number, a product line, or the hardware characteristics at least one MIB parameter.

4.   (Currently Amended) The method of claim 1, wherein the plurality monitoring the hardware characteristics of instantiated agent objects are further configured to retrieve the selected network device includes retrieving information associated with one or more of the monitored hardware characteristics [[of]] from the selected network device.

5.   (Currently Amended) The method of claim 4, wherein the information retrieved from monitored hardware characteristics of the selected network device include includes one or more of memory usage, chassis temperature, Central Processing Unit (CPU) usage, fan status, module status, or power supply status.

6.   (Currently Amended) The method of claim 4, wherein the plurality monitoring the hardware characteristics of instantiated agent objects are the selected network device further

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configured to compare ~~includes comparing~~ the retrieved information associated with the monitored hardware characteristics ~~of the selected network device~~ to a threshold value.

7.   (**Previously Presented**)   The method of claim 6, further comprising automatically communicating an alert in response to the retrieved information violating the threshold value.

8.   (**Currently Amended**)   The method of claim 1, wherein the <u>class</u> hierarchy ~~of object classes~~ for the selected agent template <u>further</u> includes a network addressable unit class that defines the <u>network device</u> class <u>corresponding to the type for</u> [[of]] the selected network device and an agent level class that ~~defines~~ <u>comprises</u> a root class <u>within the class hierarchy,</u> the agent level root class having a <u>class declaration that includes a</u> parent clause ~~declaration referencing~~ <u>listing</u> the network addressable unit class <u>that defines the network device class corresponding to the type for the selected network device.</u>

9.   (**Currently Amended**)   A <u>computer</u> ~~computer readable medium comprising computer executable instructions~~ for agent-based monitoring of network devices ~~discovered in an enterprise network~~, the <u>computer comprising at least one processing device configured to execute</u> computer-executable instructions<u>, wherein executing</u> ~~stored on~~ the <u>computer-executable instructions on the processing device cause the processing device</u> ~~computer-readable medium and operable when executed on a processor~~ to:

discover a plurality of network devices in a network, wherein each of the network devices discovered in the network include a type and a plurality of hardware characteristics;

discover a plurality of network device classes in the network, wherein each of the network device classes discovered in the network correspond to the type for one or more of the discovered network devices;

load a plurality of agent templates corresponding to the discovered network devices, <u>wherein</u> each of the agent templates ~~associated with a class of network devices and comprising~~ <u>comprise</u> a <u>class hierarchy having a plurality of instance level</u> ~~hierarchical definition for that~~ class <u>definitions for one</u> of <u>the</u> network ~~devices~~ <u>device classes discovered in the network, and</u>

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wherein the plurality of instance level class definitions represent the hardware characteristics for the one or more discovered network devices of the type corresponding to the respective network device class;

select one of the discovered network devices discovered-in-the enterprise-network as a network device to be monitored, wherein the selected network device having has a type and a plurality of hardware characteristics that include at least a class of the selected network device;

select one of the plurality of agent templates that comprises the class hierarchy for based-on the network device class of corresponding to the type for the selected network device, wherein the plurality of instance level class definitions in the class hierarchy for the selected agent template represent comprising-a-hierarchy-of-object-classes that defines possible combinations-of the hardware characteristics for the one or more discovered network devices of the type corresponding to [[in]] the network device class and the type for [[of]] the selected network device; and

instantiate [[an]] a plurality of agent objects object from the plurality of instance level object class definitions in the class hierarchy for [[of]] the selected agent template, wherein the plurality of instantiated agent objects correspond that corresponds to the plurality of hardware characteristics [[of]] for the selected network device, and wherein the plurality of instantiated agent objects are configured object-operable to monitor the plurality of hardware characteristics [[of]] for the selected network device.

10.   (Currently Amended) The computer computer-readable medium of claim 9, wherein the plurality of hardware characteristics [[of]] for the selected network device further include at least one MIB parameter.

11.   (Currently Amended) The computer computer-readable medium of claim [[9]] 10, wherein the plurality of hardware characteristics [[of]] for the selected network device further include one or more of a vendor identity, a model number, a product line, or the hardware characteristics at least one MIB parameter.

12.   (Currently Amended) The <u>computer</u> ~~computer-readable-medium~~ of claim 9, wherein the plurality ~~monitoring the hardware characteristics~~ of <u>instantiated agent objects are further configured to retrieve</u> ~~the selected network device includes retrieving~~ information associated with ~~one or more of~~ the monitored hardware characteristics [[of]] <u>from</u> the selected network device.

13.   (Currently Amended) The <u>computer</u> ~~computer-readable-medium~~ of claim 12, wherein the <u>information retrieved from</u> ~~monitored hardware characteristics of~~ the selected network device ~~include~~ <u>includes</u> one or more of memory usage, chassis temperature, Central Processing Unit (CPU) usage, fan status, module status, or power supply status.

14.   (Currently Amended) The <u>computer</u> ~~computer-readable-medium~~ of claim 12, wherein the plurality ~~monitoring the hardware characteristics~~ of <u>instantiated agent objects are</u> ~~the selected network device~~ further <u>configured to compare</u> ~~includes comparing~~ the retrieved information associated with the monitored hardware characteristics ~~of the selected network device~~ to a threshold value.

15.   (Currently Amended) The <u>computer</u> ~~computer-readable-medium~~ of claim 14, <u>wherein executing</u> the computer-executable instructions <u>on the processing device</u> further <u>cause the processing device</u> ~~operable when executed~~ to automatically communicate an alert in response to the retrieved information violating the threshold value.

16.   (Currently Amended) The <u>computer</u> ~~computer-readable-medium~~ of claim 9, wherein the <u>class</u> hierarchy ~~of object classes~~ for the selected agent template <u>further</u> includes a network addressable unit class that defines the <u>network device</u> class <u>corresponding to the type for</u> [[of]] the selected network device and an agent level class that ~~defines~~ <u>comprises</u> a root class <u>within the class hierarchy,</u> the agent level root class having a <u>class declaration that includes a</u> parent clause ~~declaration referencing~~ <u>listing</u> the network addressable unit class <u>that defines the network device class corresponding to the type for the selected network device.</u>

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17.   (Currently Amended)   A system for agent-based monitoring of network devices discovered in an enterprise network, <u>the system</u> comprising <u>one or more processing devices configured to</u>:

~~memory operable to store information associated with a plurality of network devices discovered in the enterprise network, the information stored in the memory comprising a plurality of agent templates corresponding to the discovered network devices, each of the agent templates associated with a class of network devices and comprising a hierarchical definition for that class of network devices; and~~

~~one or more processors collectively operable to:~~

<u>discover a plurality of network devices in a network, wherein each of the network devices discovered in the network include a type and a plurality of hardware characteristics;</u>

<u>discover a plurality of network device classes in the network, wherein each of the network device classes discovered in the network correspond to the type for one or more of the discovered network devices;</u>

<u>load a plurality of agent templates corresponding to the discovered network devices, wherein each of the agent templates comprise a class hierarchy having a plurality of instance level class definitions for one of the network device classes discovered in the network, and wherein the plurality of instance level class definitions represent the hardware characteristics for the one or more discovered network devices of the type corresponding to the respective network device class;</u>

select one of the <u>discovered</u> network devices ~~discovered in the enterprise network~~ as a network device to be monitored, <u>wherein</u> the selected network device ~~having~~ <u>has a type and</u> a plurality of <u>hardware</u> characteristics ~~that include at least a class of the selected network device~~;

select one of the plurality of agent templates <u>that comprises the class hierarchy for</u> ~~based on~~ the <u>network device</u> class ~~of~~ <u>corresponding to the type for</u> the selected network device, <u>wherein the plurality of instance level class definitions in</u> the <u>class hierarchy for the</u> selected agent template <u>represent</u> ~~comprising a hierarchy of object classes that defines possible combinations of~~ the hardware characteristics for <u>the one or more discovered</u> network

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devices of the type corresponding to [[in]] the network device class and the type for [[of]] the selected network device; and

instantiate [[an]] a plurality of agent objects object from the plurality of instance level object class definitions in the class hierarchy for [[of]] the selected agent template, wherein the plurality of instantiated agent objects correspond that corresponds to the plurality of hardware characteristics [[of]] for the selected network device, and wherein the plurality of instantiated agent objects are configured object operable to monitor the plurality of hardware characteristics [[of]] for the selected network device.

18. (Currently Amended) The system of claim 17, wherein the plurality of hardware characteristics [[of]] for the selected network device further include at least one MIB parameter.

19. (Currently Amended) The system of claim [[17]] 18, wherein the plurality of hardware characteristics [[of]] for the selected network device further include one or more of a vendor identity, a model number, a product line, or the hardware characteristics at least one MIB parameter.

20. (Currently Amended) The system of claim 17, wherein the plurality instantiated agent objects are further configured object operable to retrieve monitor the hardware characteristics of the selected network device by retrieving information associated with one or more of the monitored hardware characteristics [[of]] from the selected network device..

21. (Currently Amended) The system of claim 20, wherein the information retrieved from hardware characteristics of the network device include includes one or more of memory usage, chassis temperature, Central Processing Unit (CPU) usage, fan status, module status, or power supply status.

22.   (Currently Amended) The system of claim 20, <u>wherein</u> the <u>plurality of</u> instantiated agent objects are ~~agent object~~ further ~~operable~~ <u>configured</u> to ~~monitor the hardware characteristics of the selected network device by comparing~~ <u>compare</u> the retrieved information associated with the monitored hardware characteristics ~~of the selected network device~~ to a threshold value.

23.   (Currently Amended) The system of claim 22, <u>wherein</u> the <u>one or more processing devices are</u> ~~instantiated agent object~~ further ~~operable~~ <u>configured</u> to automatically communicate an alert in response to the retrieved information violating the threshold value.

24.   (Currently Amended) The system of claim 17, wherein the <u>class</u> hierarchy ~~of object classes~~ for the selected agent template <u>further</u> includes a network addressable unit class that defines the <u>network device</u> class <u>corresponding to the type for</u> [[of]] the selected network device and an agent level class that ~~defines~~ <u>comprises</u> a root class <u>within the class hierarchy,</u> the agent level root class having a <u>class declaration that includes a</u> parent clause ~~declaration referencing~~ <u>listing</u> the network addressable unit class <u>that defines the network device class corresponding to the type for the selected network device</u>.

25.   (Currently Amended) A method for agent-based monitoring of switches ~~discovered in an enterprise network~~, comprising:

discovering a plurality of switches in a network, wherein each of the switches discovered in the network include a type and a plurality of hardware characteristics;

discovering a plurality of switch classes in the network, wherein each of the switch classes discovered in the network correspond to the type for one or more of the discovered switches;

loading a plurality of agent templates corresponding to the discovered switches, wherein each of the agent templates ~~associated with a class of switches and comprising~~ <u>comprise a class hierarchy having a plurality of instance level</u> ~~hierarchical definition for that~~ class <u>definitions for one</u> of the ~~switches~~ <u>switch classes discovered in the network, and wherein</u>

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the plurality of instance level class definitions represent the hardware characteristics for the one or more discovered switches of the type corresponding to the respective switch class;

selecting one of the discovered switches discovered in the enterprise network as a switch to be monitored, wherein the selected switch has having a type and a plurality of characteristics that include at least a class of the selected switch;

selecting one of the plurality of agent templates that comprises the class hierarchy for based on the switch class of corresponding to the type for the selected switch, wherein the plurality of instance level class definitions in the class hierarchy for the selected agent template represent comprising a hierarchy of object classes that defines possible combinations of the hardware characteristics for the one or more discovered switches of the type corresponding to [[in]] the switch class and the type for [[of]] the selected switch; and

instantiating [[an]] a plurality of agent objects object from the plurality of instance level object class definitions in the class hierarchy for [[of]] the selected agent template, wherein the plurality of instantiated agent objects correspond that corresponds to the plurality of hardware characteristics [[of]] for the selected switch, and wherein the plurality of agent objects are configured instantiated agent object operable to:

monitor the plurality of hardware characteristics [[of]] for the selected switch;

retrieve by retrieving information associated with one or more of the monitored hardware characteristics [[of]] from the selected switch; and

compare comparing the retrieved information associated with the monitored hardware characteristics of the selected switch to a threshold value[[,]]; and

automatically communicating an alert in response to the retrieved information violating the threshold value.

26.   (**Currently Amended**) The method of claim 25, wherein the plurality of hardware characteristics [[of]] for the selected switch further include one or more of a vendor identity, a model number, a product line, or the hardware characteristics at least one MIB parameter.

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27.   (Currently Amended) The method of claim 25, wherein selecting one of the plurality of agent templates includes:

transmitting a ~~using~~ Simple ~~Management~~ Network Management Protocol (SNMP) [[a]] request for a Management Information Base (MIB) ~~object~~ parameter to ~~from~~ the selected switch; and

using the MIB ~~object~~ parameter to identify the switch class corresponding to the type for [[of]] the selected switch in a ~~class~~ table containing a list of the discovered ~~switches~~ switch classes, wherein the selected agent template comprises [[a]] the class ~~definition~~ hierarchy for the switch class ~~identified~~ in the ~~class~~ table that corresponds to the type for the selected switch.

28.   (Currently Amended) The method of claim 25, wherein the class hierarchy ~~of object classes~~ for the selected agent template further includes a network addressable unit class that defines the switch class corresponding to the type for [[of]] the selected switch and an agent level class that ~~defines~~ comprises a root class within the class hierarchy, the agent level root class having a class declaration that includes a parent clause ~~declaration referencing~~ listing the network addressable unit class that defines the switch class corresponding to the type for the selected switch.

29.   (Currently Amended) The method of claim 28, wherein the class hierarchy ~~of object classes~~ for the selected agent template further includes one or more group level classes that define children of the agent level root class ~~and one or more instance level classes that define the possible combinations of characteristics for the network devices in~~ within the class ~~of the selected network device~~ hierarchy, and wherein the one or more group level classes ~~further define logical groupings for~~ logically group the plurality of instance level classes within the class hierarchy.

30.   (Currently Amended) The method of claim 8, wherein the class hierarchy ~~of object~~ ~~classes~~ for the selected agent template further includes one or more group level classes that

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define children of the agent level root class ~~and one or more instance level classes that define the possible combinations of characteristics for the network devices in~~ within the class ~~of the selected network device~~ hierarchy, and wherein the one or more group level classes ~~further define logical groupings for~~ logically group the plurality of instance level classes within the class hierarchy.

31.   (Currently Amended) The computer ~~computer-readable-medium~~ of claim 16, wherein the class hierarchy ~~of object classes~~ for the selected agent template further includes one or more group level classes that define children of the agent level root class ~~and one or more instance level classes that define the possible combinations of characteristics for the network devices in~~ within the class ~~of the selected network device~~ hierarchy, and wherein the one or more group level classes ~~further define logical groupings for~~ logically group the plurality of instance level classes within the class hierarchy.

32.   (Currently Amended) The system of claim 24, wherein the class hierarchy ~~of object classes~~ for the selected agent template further includes one or more group level classes that define children of the agent level root class ~~and one or more instance level classes that define the possible combinations of characteristics for the network devices in~~ within the class ~~of the selected network device~~ hierarchy, and wherein the one or more group level classes ~~further define logical groupings for~~ logically group the plurality of instance level classes within the class hierarchy.

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